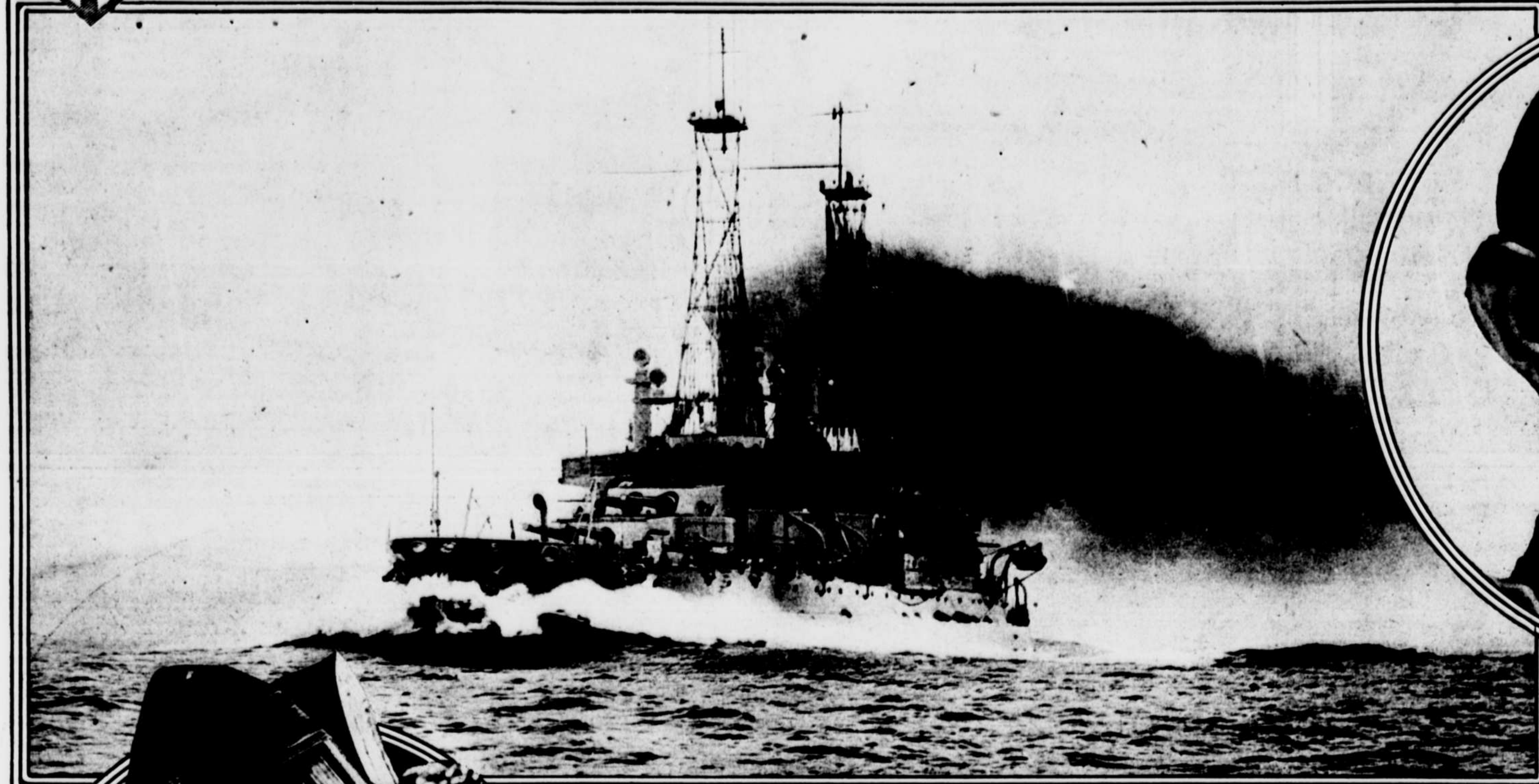
PICK OF OUR BATTLESHIPS ON PARADE



THE "MICHIGAN" *Photo Copyright by Enrique Muller.*

REAR ADMIRAL MAYO
Commanding First Division.

ADMIRAL FLETCHER COMMANDER-IN-CHIEF
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THE "NEW YORK"
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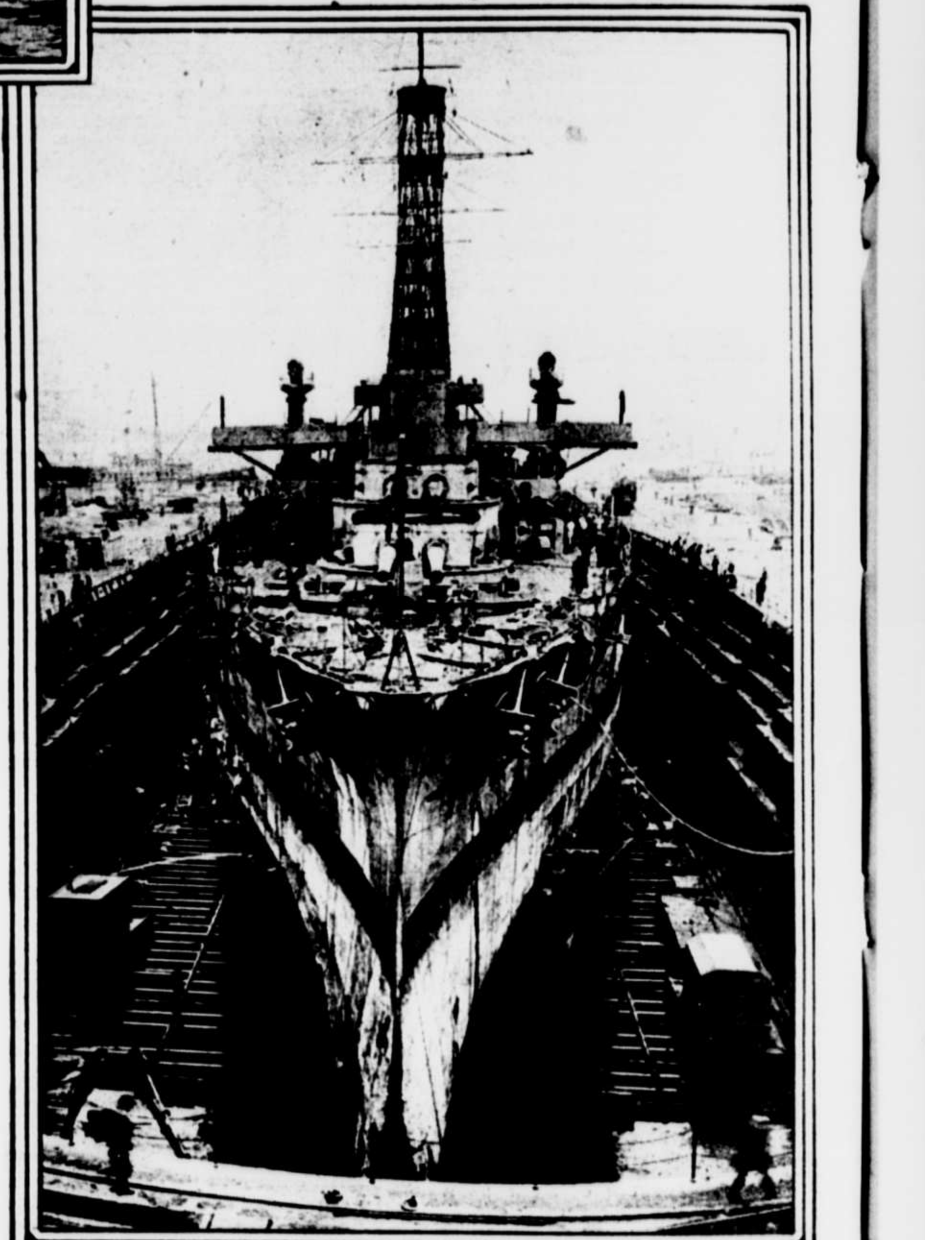

THE "ARKANSAS"
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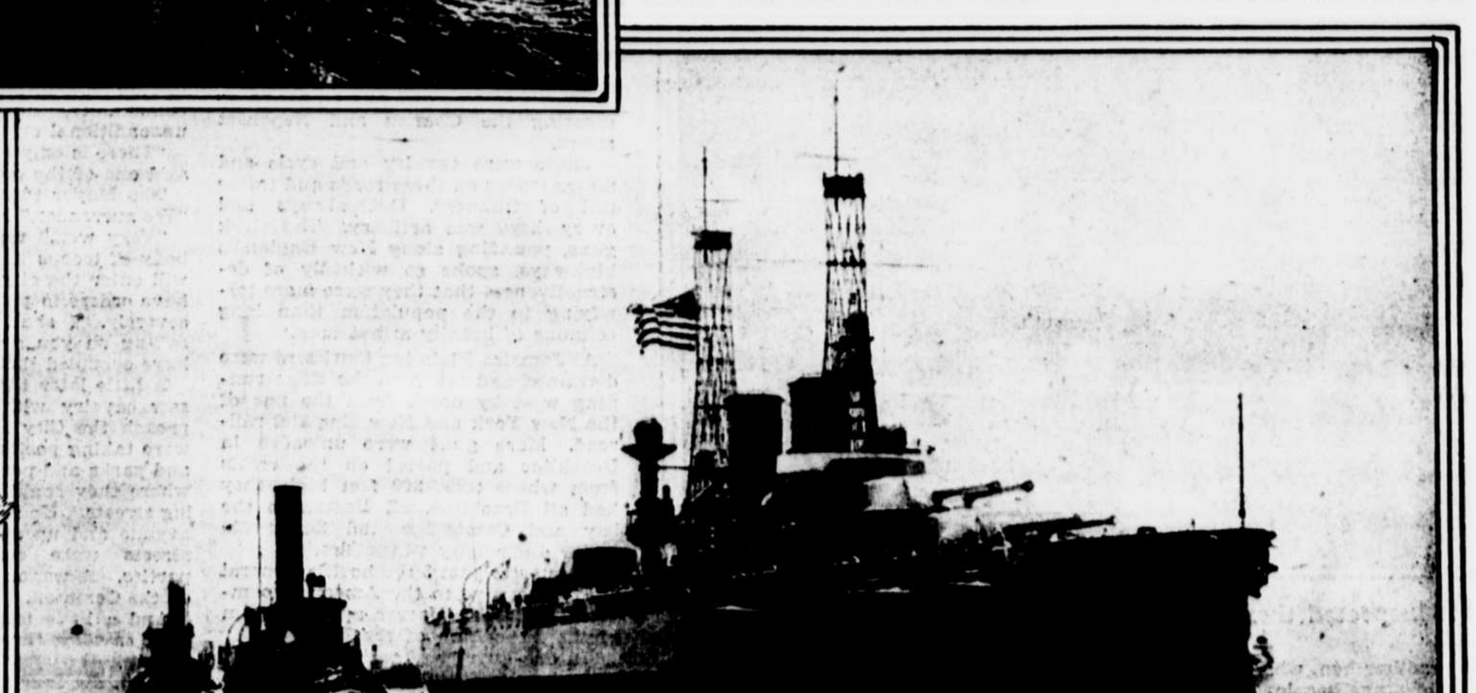

THE "TEXAS"

Coming of Admiral Fletcher's Atlantic Fleet Shows Great Advance and Greater Needs of Navy Since Last Visit of Ships to New York in October Three Years Ago

THE present week should prove a memorable occasion, both for New Yorkers in particular and the nation in general, with our greatest array of modern battle craft gathering here for review by the President of the United States on the 17th and 18th.

Nearly three years have gone since we celebrated a kindred ceremony, and in that time the heavy line of our seagoing defence has been measurably strengthened by the addition of two formidable superdreadnoughts. Indeed, to be exact, we might say four, because the Wyoming and the Arkansas were so new and but so shortly commissioned when they appeared here in October of 1912 that their crews had not whipped those vessels into anything like battle readiness. To-day the Wyoming is the prize winner of our Atlantic fleet and stands for our maximum of fighting efficiency.

Now Admiral Fletcher's fleet boasts the presence of the New York and the Texas, commissioned but a little more than a year ago. These two splendid armored giants have added to our active navy a matter of 56,734 tons and a force of twenty great 14 inch guns of .45 calibres.

A comparison of these weapons with those aboard the Wyoming and Arkansas will make clear to the man in the street just what our advance has been in capacity to deal a stunning blow. While our 12 inch guns of .45 calibres throw projectiles of 870 pounds, with a muzzle energy of 48,984 foot tons, our .45 calibre 14 inch weapons hurl a 1,400 pound shell, starting on its journey of destruction with an energy of 65,687 foot tons. At 10,000 yards the 12 inch shell can penetrate 15.2 inches of Krupp armor, while the 14 inch projectile, at the same range can pierce 15.9 inches of the same sort of protective steel.

To the layman this may not mean much of a gain in the power to harm a foe, but the fact is quite to the contrary, because the larger shell carries a very much bigger bursting charge, and this is to spread wreck and ruin inside of an enemy's ship after its heavier weight has enabled it to break its way through the stoutest walls of steel.

While the Texas and New York carry but ten big guns each as against the twelve guns in the main batteries of the Wyoming and the Arkansas, still the total broadside of the New York is 14,000 pounds, as compared with the salvo of 10,440 possible with the Wyoming's 12 inch weapons. As the modern battle is won by salvos, and as superior weight of metal and greater bursting charges mean graver injuries, it should be clear to the popular mind just what our two latest additions to our Atlantic dreadnought fleet mean to our potential security in time of need.

Up to the time of writing this article none of the great dreadnoughts of Europe have met in battle. Those that have gone into action have tried forces with land defences, and notably the forts guarding the approaches to the Dardanelles. But lessons are to be learned from the fight off the coast of Chile, the battle near the Falkland Islands and the engagement when the British fleet pursued the Germans and sunk the Bluecher.

The two armored ships of Admiral Cradock's force had a combined displacement of 23,900 tons and their total complements numbered 1,467, officers and crew. Admiral von Spee's two armored cruisers totalled 22,840 tons and the men available numbered 1,582. The German Admiral had more men for lesser displacement.

Counting only armor piercing guns Admiral Cradock had aboard the Good Hope and the Monmouth a total of thirty-four heavy weapons—thirty-two 6 inch and two 9.2 inch rifles. Admiral von Spee on the Gneisenau and Scharnhorst had altogether sixteen 8.2 inch pieces and twelve 5.9 inch rapid firers. In numbers the German ships were seemingly outclassed so far as guns were concerned, but the Kaiser's armored cruisers were vastly superior because of their batteries of 8.2 inch rifles. In the matter of speed there was but little to choose between the opposing forces. In fact, the average maximum speed was substantially identical.

Just at dusk, when his vessels were merged with the gray of coming night, Admiral von Spee opened upon the British cruisers with a salvo of eight inch shells, some of them falling short and others passing over their targets, the Monmouth and the Good Hope. The two squadrons were 12,000 yards apart, and yet inside of ten minutes the only 9.2 inch guns in the British batteries were disabled or silenced. Admiral von Spee's flagship, the Scharnhorst, was the gold medal gunnery ship of the German navy, and with the Gneisenau von Spee held the British cruisers at arm's length until he had battered them beyond retaliation. Equality of speed, heavier guns and superior practice and more men at his command enabled the German Admiral to batter his way well-nigh scatheless to victory.

On December 8 the old battleship Canopus, three armored cruisers, the newest one ten years old, and two smaller craft were cruising just outside Port Stanley, Falkland Islands, when Admiral von Spee with five ships came in sight. Believing the odds were even, the German decided to give battle, opening fire at long range. Then it was that the two British battle cruisers, capable of doing three knots more than the Scharnhorst and Gneisenau, slipped out of port where they had been coaling unseen by the foe. The moment those 17,000 ton ships came into view Admiral von Spee knew that he was outclassed, and ordered his vessels to scatter.

Admiral Sturdee had 12 inch guns to oppose the 8.2 inch weapons of Von Spee, and the British commander, by reason of his superior speed, was able to choose his own position and to hold it. At ranges ranging from 14,000 to 12,000 yards, he hammered away at the fleeing Scharnhorst and Gneisenau and because of the heavier defensive armor of the Invincible and Inflexible, the German shells struck nearly harmlessly the pursuing battle cruisers, while the great 12 inch projectiles from the English guns ripped and tore through Von Spee's ships.

Here both superior speed and heavier long range guns won the day, and for the first time the world realized the mission of the battle cruiser. Americans should keep this in mind, for nowhere in our fleet does this type appear.

Now the Wyoming has 12 inch guns, and a dozen of them, against the eight aboard either the Invincible or the Inflexible, but there is a great difference in the tactical element of speed. The best the Wyoming has ever done is 21.2 knots an hour, while the battle cruisers named are rated at 26.5 knots an hour.

The best any of our dreadnoughts now in service has done is a trifle over 22 knots, and this record is credited to the Florida, while the average speed of our dreadnoughts now being built is about 21 knots. The fastest battle cruiser abroad, the Seydlitz of the German navy, has made 29.2 knots, and three of the rival British battle cruisers are rated at 28.5 knots an hour.

A further lesson as to this matter of superior speed combined with heavy gunfire is to be derived from the so-called North Sea cruiser battle. Just at dawn on January 24 the scouting screen of Vice-Admiral Sir David Beatty's squadron got in touch with the German cruiser fleet under Rear Admiral Hipper, whose flagship was the Seydlitz. At once the scouting craft of the two squadrons opened fire and the speedy light cruiser Aurora wirelessed the news to the main British fleet, miles away.

Hanging tenaciously upon the heels of the foe Vice-Admiral Beatty's destroyers and light cruisers maintained touch with the enemy and kept the British battle cruisers fully informed of the foe's movements. As Admiral Beatty has reported, his battle cruisers worked up to full speed, thanks to the splendid response from the engineering divisions of his ships, and gradually those two 26,000 ton giants the Lion and Princess Royal and the 28,000 ton Tiger were doing 28.5 knots an hour as they dashed through the tumbling seas indifferently.

It was a long chase of an hour or more before the leading British cruiser, the Lion, got within 20,000 yards of the rear German ship, the Bluecher. A single shot for range finding fell short, but finally after a quarter of an hour of intermittent testing of this sort the Lion scored her first hit on the Bluecher, and shortly afterward the Tiger joined in the attack, both vessels firing from a distance of 18,000 yards. Then the racing Lion and Tiger hurled salvo after salvo at the ships ahead, the Princess Royal coming up and joining in.

Against guns ranging from 8.2 inch to 12 inch, but mostly 11 inch in calibre, on the German ships, the three heaviest British cruisers threw 13.5 inch shells and the New Zealand and Indomitable, greatly exceeding their normal speeds, thanks to the extraordinary labors of the men in the stokeholds, brought their 12 inch guns to bear. At ranges that were probably never less than 17,000 yards the British fire destroyed the Bluecher and apparently set fire and seriously damaged two others of the Kaiser's battle cruisers. The Seydlitz made the most of her superior speed and got away, notwithstanding she was afire.

The Lion was damaged by a shot that crippled a boiler feed tank and the rest of the British squadron ended the pursuit when the periscopes of submarines were sighted and the German mine fields were approached. In this action great speed enabled Vice-Admiral Beatty to close with his foe near enough to bring his heaviest weapons to bear effectively, and we must remember that the British 13.5 inch guns outclass anything we have afloat, except the 14 inch weapons on the Texas and the New York, now in commission. All of our dreadnoughts now under construction will have guns of this calibre. So much for speed and big guns.

But the North Sea cruiser battle gives further food for reflection. The United States navy has three scout cruisers, the Birmingham, Chester and Salem, vessels of 3,750 tons displacement, and of 24.33, 26.52 and 25.95 knots trial speeds respectively. The British navy has many vessels of this type and size—some still larger, and three of those in Vice-Admiral Beatty's fleet were able to do 29 knots an hour, while his flotilla of destroyers were all boats of at least 30 knots. Now see what advantage he got from these unarmored craft.

At 18,000 yards it was next to impossible for the men in the tops to "spot" accurately the fall of the British shell. Accordingly the light cruisers, or scout cruisers as we call them, were held midway in the direction of the foe, but off to one side, where their smoke would not interfere with vision, and there, uncomfortably close to the excellent German marksmen, these unarmored vessels deliberately "spotted" the fall of the 13.5 inch projectiles from the Lion, Tiger and Princess Royal, making certain the destruction of the Bluecher and the injury of two other fleeing German battle cruisers. For four hours that running fight continued.

Once during that long range action the German flotilla of destroyers swung preliminary to rushing upon the British battle cruisers, but the wonderfully accurate fire directed against them from the 13.5 inch guns on the Lion, Tiger and Princess Royal halted the manœuvre and sent them scurrying back to the distant lee of their armored ships.

Even so, they tried to play a helpful part in another way. Pouring fuel into their furnaces the destroyers emitted vast columns of smoke from their funnels, hoping thus to screen their battle cruisers and to give Rear Admiral Hipper a chance to change his course unobserved. But the ruse failed because the English fight

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